



U.S. Department of Energy  
Office of Civilian Radioactive Waste Management



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# DOE/NRC Quarterly Management Meeting

December 07, 2005  
Las Vegas, Nevada

**Agenda**  
**DOE/NRC Quarterly Management Meeting**  
**December 7, 2005**  
**8:00 AM- 1:30 PM (PT)**  
**11:00 AM - 4:30 PM (ET)**

**U. S. Nuclear Regulatory Commission**  
**Pacific Enterprise Building One**  
**3250 Pepper Lane**  
**Las Vegas, NV**

*And via Videoconference to:*

**Bechtel SAIC Company, LLC**  
**Building 9, Room 915**  
**9960 Covington Cross**  
**Las Vegas, Nevada**

**CNWRA**  
**Bldg. 189, Conference Room B232**  
**6220 Culebra Road**  
**San Antonio, TX**

**U. S. Nuclear Regulatory Commission**  
**Two White Flint North, 7 A1**  
**11545 Rockville Pike**  
**Rockville, Maryland**

*INTERESTED PARTIES MAY PARTICIPATE VIA TELECON BY CALLING 1-800-638-8081 or  
301-231-5539, Passcode 3610#*

<b>8:00 AM</b>	<b>Opening Remarks</b>	<b>NRC/DOE</b>
<b>8:15 AM</b>	<b>NRC Program Update</b>	<b>NRC</b>
<b>8:35 AM</b>	<b>DOE Program Update</b>	<b>Knox</b>
<b>9:30 AM</b>	<b>Yucca Mountain Project Update</b>	<b>Arthur</b>
<b>11:00 AM</b>	<b>Break</b>	<b>All</b>
<b>11:15 AM</b>	<b>Design Update</b>	<b>Harrington</b>
<b>11:45 AM</b>	<b>Quality Assurance Program Update</b>	<b>Ulshafer</b>
<b>12:15 PM</b>	<b>Caucus</b>	<b>All</b>
<b>12:45 PM</b>	<b>Action Item Status</b>	<b>Hanlon</b>
<b>1:00 PM</b>	<b>Closing Remarks</b>	<b>NRC/DOE</b>
<b>1:15 PM</b>	<b>Public Comments</b>	<b>All</b>
<b>1:30 PM</b>	<b>Adjourn</b>	



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# Design and Engineering Update

Presented to:  
**DOE/NRC Quarterly Management Meeting**

Presented by:  
**Paul Harrington**  
Acting Director, Office of Project Management and Engineering  
Office of Civilian Radioactive Waste Management  
U.S. Department of Energy

**December 7, 2005**  
**Las Vegas, Nevada**

# Main Topics

- Initial review of preliminary report for Critical Decision-1 revision
- Overall design impact
- Preclosure Safety Analysis impact



# Preliminary Critical Decision-1 Report

- On October 25, 2005 DOE directed Bechtel SAIC Company, LLC to develop a revised Critical Decision-1 package, including Conceptual Design Report
- Preliminary report for Critical Decision-1 revision received on November 23, 2005
- Preliminary report currently under review



# Preliminary Critical Decision-1 Report

(Continued)

- **Implementation of canister-based approach means:**
  - Spent nuclear fuel (SNF) generally would be sent to the repository in a standardized Transportation, Aging and Disposal canister (TAD)
  - SNF would not require repetitive handling prior to disposal
  - Lessons learned from previously developed design detail can be applied
- **Some individual SNF assembly handling will be required for truck or other uncanistered transportation casks, dual-purpose canisters, or remediation**
  - All SNF handling can be done safely
  - Canisters require less handling than individual SNF assemblies
  - Category 1 event sequences likely eliminated



# Preliminary Critical Decision-1 Report

(Continued)

- **Preliminary report on canister-based operations focuses on simple, safe, and clean operations, including:**
  - Disposable canisters
  - Minimum individual SNF assembly handling
  - Phased construction approach
  - Capability for both truck and rail deliveries
- **Report addresses functions required for SNF handling and disposal**



# Initial Evaluation of Report

- **Report evaluates material flows rather than building layouts**
- **Maintains operations as clean as possible**
- **Identifies variables and options for surface facilities:**
  - **Address SNF proportions: TADs vs. uncanistered**
  - **Simplify handling, design and safety analysis**
  - **Reduce dose**
  - **Increase use of standard industry processes**
  - **Increase flexibility, modularity, throughput**





# Overall Design Impact

- **Much of repository design is not impacted by incorporation of TADs:**
  - **General subsurface configuration, with possible small increase in footprint**
  - **Design for transporting waste packages to subsurface, and associated emplacement equipment**
  - **Waste package design, with possible additional configuration similar to naval long waste package design**
  - **Design approach for handling DOE SNF and High-level (radioactive) waste (HLW) and Navy materials**
  - **Aging pad configuration may not be altered**



# Preclosure Safety Analysis Impact

- **Much of repository preclosure safety analytical approach is not impacted by TADs:**
  - Concrete structures
  - Ventilation systems
  - Electrical power systems
  - Most balance of plant systems
- **Need to update affected nuclear safety design bases and analyses**



# Path Forward

- **General schedule for selection and future Critical Decision-1 Package development:**
  - **Late 2005: Review preliminary report**
  - **Early 2006: Development of revised Critical Decision-1 package**
  - **Followed by:**
    - ♦ **DOE approval of revised Critical Decision-1**
    - ♦ **LA design modifications and updates to preclosure and postclosure safety analyses**





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# Quality Assurance Overview

Presented to:  
**DOE/NRC Quarterly Management Meeting**

Presented by:  
**Michael L. Ulshafer**  
Acting Director, Office of Quality Assurance  
Office of Civilian Radioactive Waste Management  
U.S. Department of Energy

**December 7, 2005**  
**Las Vegas, Nevada**

# Quality Assurance Overview

- **Quality Assurance Requirements and Description (QARD)**
- **Corrective Action Program (CAP) Oversight**
- **Office of Quality Assurance (OQA) Audits/Surveillances**
- **Management & Operating (M&O) Contractor Quality Assurance (QA) Audits/Surveillances**



# Quality Assurance Requirements and Description

- QARD Rev 17
- QARD Rev 18



# Corrective Action Program Oversight

- Oversight Update
- Level A and B Condition Reports



# Office of Quality Assurance Audits/Surveillances

- **Completed Audits**
  - Bechtel SAIC Company, LLC (BSC) Design
  - OCRWM, Washington, DC
  - BSC Quality Program Implementation
  - BSC Qualification, Indoctrination and Training
- **Completed EM/OCRWM Audits**
  - Hanford Spent Nuclear Fuel





# **Office of Quality Assurance Audits/Surveillances**

(Continued)

- **Upcoming Audits**
  - **BSC Corrective Action Program and Trending**
  - **United States Geological Survey**
- **Upcoming EM/OCRWM Audits**
  - **Savannah River National Laboratory Plutonium Vitrification Project**
  - **National Spent Nuclear Fuel Program**



# **Management and Operating Contractor Quality Assurance Audits/Surveillances**

- **Completed Audits**
  - **Scientific Investigation, Measuring and Testing Equipment, and Sample Control**
  - **United States Geological Survey**
  - **National Laboratories and Test Coordination Office**
  - **Supply Chain Activities**
- **Completed Surveillances**
  - **Four Surveillances of Scientific Activities**
  - **Two Surveillances of Transportation Subcontractor Activities**



# **Management and Operating Contractor Quality Assurance Audits/Surveillances**

(Continued)

- **Upcoming QA Audits**
  - Implementing Documents and Document Control
  - Software Control
  - Audit of Site Activities
- **Upcoming Notable QA Surveillances**
  - Site Activities (3)
  - CAP, Level C CR Processing (3)
  - Removal of Lawrence Berkeley National Laboratory Measuring and Test Equipment in Tunnel



**Consolidated Action Items**  
**From the NRC/DOE Quarterly Management Meetings**  
**(December 7, 2005)**

<b>Item No.</b>	<b>Description</b>	<b>Status</b>
MM 0402-C1	DOE will identify any to-be-verified (TBV) data in the LA that needs to be qualified (if any) at the time of LA submittal (Commitment).	Open. This item will remain open until LA submittal.
MM 0506-01	DOE and NRC to determine the dates for the list of proposed technical interactions discussed during the June 6, 2005 Management Meeting.	Open. This item will remain open as a continuing action and will report progress at December management meeting.
MM 0509-01	DOE/NRC to hold technical exchange after the DOE report addressing the USGS alleged falsification of data has been released by the Secretary.	Open. This item will remain open as a continuing action and will report progress at December management meeting.

**Note:** The Quarterly Management Meeting action items are designated as "MM yymm-nn" where yy is the two digit year, mm is a two digit month and nn is a two digit action item number from that meeting.